

**METHOD FOR TRANSFERRING MESSAGES ALONG OPTIMALLY
REDUNDANT NETWORK PATHS IN A DISTRIBUTED
COMMUNICATION NETWORK**

ABSTRACT OF THE DISCLOSURE

[33] A method that provides for the reliable and timely transfer of messages on a distributed communication network includes choosing a plurality of candidate overlay route processors from the distributed communication network, the candidate overlay route processors being coupled to a message source and a message destination of the network. Thereafter, the identity of intervening network components in the network paths between the message source and each of the candidate overlay route processors is ascertained. Next, at least two selected overlay route processors are selected from the candidate overlay route processors based on minimizing the number of overlapping intervening network components in the network paths between the message source and the at least two selected overlay route processors. A message is the transferred from the message source to the at least two selected overlay route processors along the network paths with a minimized number of overlapping intervening network components.